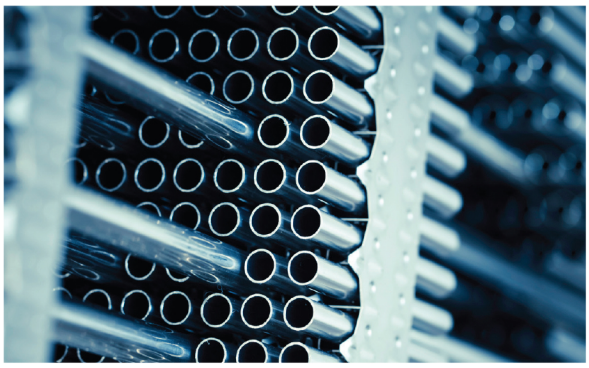
ALLOY 625 TUBING



Alloy 625 is an austenitic nickel alloy resistant to crevice corrosion and oxidation, specifically under a wide range of temperatures from cryogenic to 1800°F. This makes the product well suited for nuclear and aerospace applications. The main feature of alloy 625 is the addition of niobium which increases the strength of the tubing without heat treating.

PRODUCTION SPECIFICATIONS

ASME SB444/ASTM B444, NACE MR0175

MECHANICAL PROPERTIES

Yield Strength	60 KSI min.
Tensile Strength	120 KSI min.
Elongation (min. 2in.)	30%

DIMENSIONAL TOLERANCES

OD	OD Tolerance	Wall Tolerance
3/16" - 0.5", Excl	+.004"/-.000"	+/- 10%
0.5" - 1.25", Excl	+.005"/-.000"	+/- 10%

SIZE RANGE

Outside Diameter (OD)	Wall Thickness
3/8" - 3/4"	.035" - .095"

ALLOY 625 (UNS N06625)
CHEMICAL COMPOSITION % (MAX.)

Cr	Chromium	20.0 - 23.0
Ni	Nickel	58.0
C	Carbon	0.10
Mo	Molybdenum	8.0 - 10.0
Mn	Manganese	0.50
Si	Silicon	0.50
P	Phosphorus	0.015
S	Sulfur	0.015
Fe	Iron	5.0
Co	Cobalt	1.0
Nb+Ta	Niobium-Tantalum	3.15 - 4.15
Al	Aluminum	0.40
Ti	Titanium	0.40

FABRICATION

Alloy 625 has excellent forming and welding characteristics, but is prone to work hardening.

OD	Wall	ID	PSI
3/8" (.3750")	.035	.305	20,160
	.049	.277	28,224
	.065	.245	37,440
	.083	.209	47,808
1/2" (.5000")	.035	.430	15,120
	.049	.402	21,168
	.065	.370	28,080
	.083	.083	35,856
3/4" (.7500")	.095	.560	27,360

All Pressure Ratings are approximate and for illustration purposes only. Values are not Guaranteed or Warranted.

TYPICAL APPLICATIONS

Offshore
Subsea
Aerospace
Nuclear
Heat Exchangers
Offshore Applications
Chemical Processing